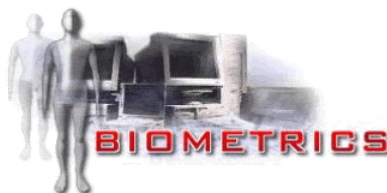


# American National Standard X9.84-2001 Biometric Information Management and Security

The  
Biometric Consortium Conference  
February 13 – 15, 2002

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The Hyatt Regency Crystal City,  
Arlington, Virginia, U.S.A.

## Who is X9



- ANSI Accredited Standards Committee (ASC) X9 develops standards for the financial industry



- X9 is US Technical Advisory Group (TAG) to ISO Technical Committee 68

- [www.iso.org](http://www.iso.org)
- [www.tc68.org](http://www.tc68.org)

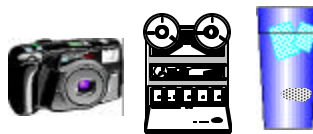
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## X9.84 Revelation

- Biometric data cannot be kept confidential
  - faces can be photographed
  - voices can be recorded
  - fingerprints can be lifted
  - signatures can be copied
- Thus the security of an authentication system cannot rely on secrecy of biometric data
- Instead, must ensure the integrity and authenticity of the biometric data – privacy is optional



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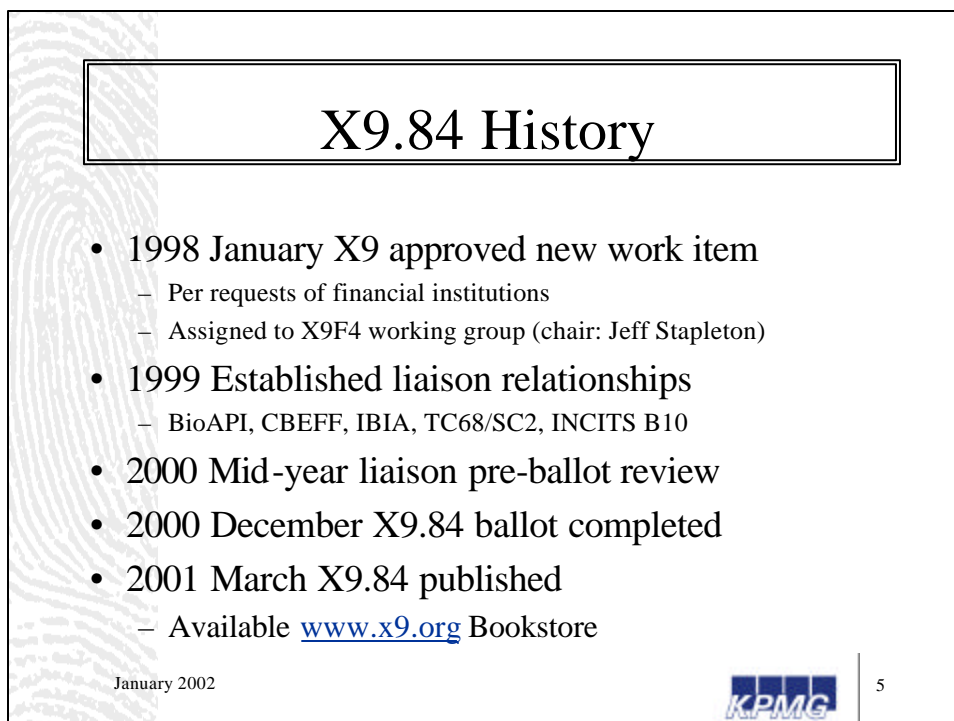
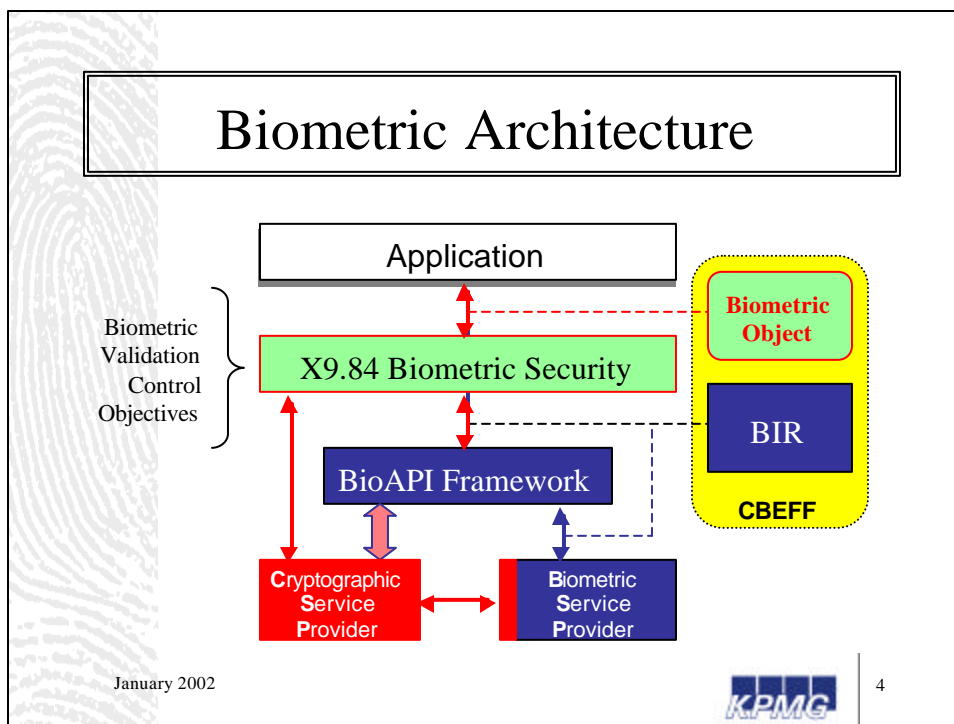
## X9.84 in a Nutshell

- Establishes a **FRAMEWORK** consisting of components
  - Data Capture, Signal Processing, Matching, Storage, etc.
- Defines **REQUIREMENTS** for operating a biometric authentication system in a financial services environment
  - Enrollment, Verification, Identification and Storage
- Provides **TECHNIQUES** satisfying the privacy, integrity and authenticity requirements for biometric data (ASN.1)
  - Harmonized w/ NISTR 6529 CBEFF & BioAPI Specification 1.0
- Offers comprehensive set of **CONTROL OBJECTIVES**
  - suitable for use by a professional audit practitioner to validate a biometric authentication system

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## X9.84 – ISO Debacle

- 2001 June X9.84 submitted to TC68/SC2
  - X9 is US TAG to ISO TC68
  - ISO fast-track DIS 21352 (X9.84)
- 2001 September TC68/SC2 dissension
  - ISO/IEC JTC1/SC17 shadow groups
- 2001 October JTC1/SC17 presented X9.84
- 2001 December DIS defeated
  - Disliked ISO fast-track, want 5-stage development
  - Generic standard, belongs in JTC1/SC17

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## X9.84 Current Events

- Fact: X9.94 is a US national standard on biometrics for use in the financial industry
- ISO TC68 has demonstrated that ISO is not interested in biometrics
- Others can use X9.84 – just purchase a copy
  - Other US industries can refer to X9.84
  - Other countries can refer to X9.84
- Discussed X9.84 to new INCITS Technical Committee M1 on biometrics

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## X9.84 Conclusions

- Biometric pilots are (slowly) becoming production systems
- Safe and secure management of biometric information is critical success factor
- The time to establish biometric security policies, practices, and procedures is...

**NOW**

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